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ABSTRACT

Schools without Walls (SWW) is an alternative college preparatory program within the District of Columbia Public School System that provides a student-centered environment that maximizes integrative, interactive, and experiential learning with the framework of the humanities. This document is intended to serve as the basis for the design of new and/or renovated building(s) that serve the SWW program. It first describes the SWW program; its teaching programs; enrollment and staffing; and the history and condition of its existing building, including its infrastructure, plumbing, and technology integration. It then addresses the building design project's goals and standards for modernizing the SWW facility that includes consideration of enrollment levels, projected teaching and administrative staffs, and space requirements. A zoning analysis for the potential acquisition of space within the District of Columbia concludes the report. (GR)

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ED 464 471

# Education Specification
# The School Without Walls

For

The 21st Century School Fund

by

Einhorn Yaffee Prescott, PC

1998

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# 1. PURPOSE

This Educational Specification is intended to serve as the basis for design of new and/or renovated building(s) to serve the needs of the School Without Walls (SWW), an alternative high school program within the DC Public School System.

The renovation is anticipated to take place within the larger context of a public/private venture which would provide the modernized facility in exchange for development rights and/or other consideration related to property owned by the District of Columbia and controlled by the District of Columbia School System.

# 2. PROJECT JUSTIFICATION

Even without alternative sources of revenue to pay for the modernization of the SWW, the modernization of SWW can be justified as a high priority for the District of Columbia Public Schools.

- The School Without Walls is among the few public schools in the District which is over 100 years old that is still in use as a public school.
- It has serious deficiencies in its roof, structural problems to the front stairs, needs the brick exterior repointed, has obsolete heating and electrical systems, and windows which at 116 years old are no longer repairable.
- Since it was built as an elementary school 116 ago, it does not meet minimum standards for supporting the academic program, even though this is mitigated somewhat by the "Without Walls" component of the SWW program.
- The school is fully utilized by students from throughout the District and there is high demand for entrance into SWW.
- There is potential for lease income from a modernized SWWs to offset the cost of a District financed modernization.

The Educational Specification is meant to familiarize the members of the design team with the requirements of the School Without Walls. While it sets forth very specific requirements, it is expected that this program will be refined as part of the design process, either in a partnership or with the DCPS contracted architect.

# 3. THE SCHOOL WITHOUT WALLS EDUCATIONAL PROGRAM

## A. The School Without Walls Mission

The School Without Walls is an alternative high school within the District of Columbia Public School System. The program was established in March 1971 as part of the "alternative schools" movement. The program was modeled after the successful Parkway Program in the Philadelphia school system.

The D.C. Public Schools describes the School Without Walls as follows:

"The School Without Walls is a demanding alternative college preparatory

program that seeks to foster independence and creativity. Academic opportunities include internship, apprenticeship, and independent study."
The Mission Statement (as expressed in the teacher's manual) states that:

*School Without Walls will provide a quality student-centered environment that maximizes integrative, interactive, experiential learning within the framework of the humanities. This will be achieved by using the "city as classroom" and the school as a model of collaboration among staff, students and parents.*

The intimate scale of the school, the small class sizes and the small school itself are considered an important aspect in support of the mission of the school.

**B. Special Programs**

It is important to note the unique nature of The School Without Walls in developing and implementing the space program (versus a more traditional comprehensive high school space program). Students at SWW spend 15-20% of their time in:

- Internships in area businesses and agencies
- College courses for qualified students
- Individualized Study

In addition to individualized off-site activities, classes offered at SWWs, held twice a week in two hour blocks, may take place off site. Some sample locations have included the National Zoo, Smithsonian Museums, science labs at the University of the District of Columbia, and The George Washington University. Athletics take place off site and student participation on sports teams has typically been addressed through participation on teams of other D.C. public high schools, but currently SWWs has

There is no cafeteria or food service capability within the school. Students eat off campus at the GW University Marvin Center, from street vendor stands, or local retail fast food establishments, or bring their lunches from home. There is minimal and informal support for eating lunch within the building ( a small microwave for students in the Chemistry room and refrigerator for student use in the Biology room.

Assemblies take place off site, but there is a weekly informal morning meeting which takes place each Wednesday. During this time, all students enrolled at SWW must assemble in the front hall of the school to listen to announcements, acknowledge student achievement, or learn of any specific activities or issues affecting the school as a whole.

**C. Technology**

The integration of technology into the learning process is central to the School Without Walls program as it is proposed. Access to appropriate technology is crucial to development of interdisciplinary teaching approaches and to maximize

access to resources outside the school, creating a 21st Century School Without Walls.

### D. Non-SWW Programs

In addition to supporting the School Without Walls program, the building is used by The George Washington University for classroom teaching space during evening hours. A use agreement exists between GWU and DC Public Schools under which GWU pays a minimal rent for these activities. GWU does not intensely use the school for classes. The space and scheduling requirements of GWU in a modernized SWW need to be identified.

## 4. ENROLLMENT AND STAFFING

### A. Student Population

Enrollment for the 1997-1998 school year is 321 students. There is a small ninth grade has usually been a smaller class of approximately 40 students, with the balance of the students enrolled in the tenth, eleventh and twelfth grades. When the school first began in 1971, it enrolled 150 students, with ten teachers, one counselor and a principal. In more recent years, enrollment has ranged from a low of 222 in the 1990-91 school year to a high of 321 for the 1997-98 school year. Projected enrollment for the 1998-1999 school year is 320 students.

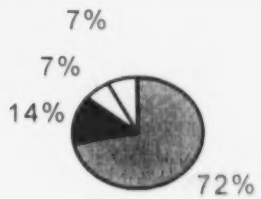
**School Without Walls Student Enrollment 1990-91 to 1997-98.**

| School Year | Enrollment |
|---|---|
| 1990-1991 | 222 |
| 1991-1992 | 257 |
| 1992-1993 | 239 |
| 1993-1994 | 272 |
| 1994-1995 | 272 |
| 1995-1996 | 297 |
| 1996-1997 | 317 |
| 1997-1998 | 321 |

School Without Walls is a city-wide alternative senior high school. Students must apply and be accepted in order to enroll. Students come to School Without Walls from throughout the District of Columbia. For the 1996-97 school year, 51% come from the NW quadrant, 21% from the NE quadrant, 7% from the SW quadrant and 21% from the SE quadrant.

The student community includes a wide variety of educational, social, economic, and ethnic backgrounds. The diversity of the student body is considered an asset to the program. Current ethnic and Gender breakdowns follow.

## School Without Walls 1996-97 School Year: Enrollment by Race and Ethnicity




| | |
|---|---|
| Male | 34% |
| Female | 66% |

Since no lunch is provided through the school, there are no figures for student family income based on free or reduced lunch, but students come from a wide range of economic family backgrounds.

**B. Staffing(Teachers) 1997-1998 School Year**

| | |
|---|---|
| Biology | 1 |
| Chemistry | 1 |
| Physics | 1 |
| Humanities | 4 |
| Social Studies | 4 |
| Math | 3 |
| Foreign Language | 2.5 |
| Music | 1 |
| Art | 1 |
| Physical Education | 1 |
| Dance | .5 |
| Business | 1 |
| ESL | 1 |
| Librarian | 1 |
| Counselor | 1 |
| ***Total ET-15*** | ***23*** |
| Library aide (vacant) | 0 |
| Counselor aide | 1 |
| Computer aide | 1 |
| ***Total instructional aides*** | ***2*** |

Although there are 23 full time teaching positions, three full-time "wages-as-earned" positions are divided between 4 people, so there are actually more teachers than positions.

**Staffing (Administration) 1997-1998 School Year**

| | |
|---|---|
| Principal | 1 |
| Assistant Principal | 1 |
| Administrative aid | 1 |
| Office clerk | 1 |
| Attendance counselor | 1 |
| Attendance aide | 1 |
| Security aide | 1 |
| Counselor aide | 1 |
| Building Engineer | 1 |
| Custodian | 1 |
| ***Total*** | ***10*** |

## 5. EXISITING FACILITY

### A. History

The current school building is located on G Street between 20th and 21st Streets NW (Square 80, Lot 829). It was constructed in 1882 as the Analostan School and renamed the Ulysses S. Grant School in 1890. It was originally designed as an elementary school and was used for that purpose until 1977. The School Without Walls program has occupied the facility since then.

The building is constructed in a red brick Romanesque style typical of several similar contemporary elementary school structures in the District. The exterior facade includes decorative pilasters and brickwork, stone lintels and sills, and a "tower" used to mark the entry bay. Entry stairs are stone. Roofs are slate. The building includes roughly 32,300 gross square feet at three floors and a basement. All levels are used by the school. A free standing privy addition at the rear of the building shown on early drawings has been demolished. The school is largely as it was originally built, with no additions or major exterior alterations.

The School Without Walls is one of the earliest surviving school buildings anywhere in the District of Columbia. According to a recent report from DCPS, the school is located on a historic site, and is eligible for DC historic status, but is not registered locally or on the national register of historic buildings.

### B. Site and Location

The site includes 29,711 square feet (0.63 acres). The school faces G Street, N.W. while the site passes through the block to F Street. The school parking lot abuts The George Washington University's recently renovated University Inn that houses faculty offices used by the School of Education to the east. The west side

of the site abuts the rear yards of town houses. The rear of the site fronts F Street and includes a small basketball court. The surface has broken up and weeds grow through the cracks. This section has been cited by staff as unsafe for student athletic activities. It is used as overflow parking area for parent meetings and teacher parent conference days. The asphalt parking area contains approximately 30 spaces. It was resurfaced in 1995. Gate and fencing at F street and adjacent to the GWU property are in good condition. The remainder of the fencing is in fair condition. No "greenspace" exists on the site.

The location of the school is integral to its program. It is within the borders of the campus of The George Washington University, which is located adjacent to the central business district of Washington. The school is also close to the Foggy Bottom Metro served by the Orange and Blue lines. Proximity to the Metro enables students from throughout the District to reach the school. It also facilitates access to internships, student participation in classes at other schools and universities, and class work at Smithsonian museums and the National Zoo.

### D. Zoning

The site is zoned R-5-D Attached is a copy of the metes and bounds survey from the District Surveyor. A pro bono preliminary analysis of the zoning issues affecting the site was prepared by the law firm McGuire, Woods, Battle and Boothe.

## 6. BUILDING CONDITION

### A. Exterior Envelope

Roof and Gutters - The vast majority of roof consists of slate shingles with metal gutters. Some slate is deteriorated or missing. The building engineer reports that, while most remaining slate appears in good shape, the tar paper under the original roof has deteriorated. Roof leaks are a significant problem. Despite efforts by maintenance staff leaks still occur at three classrooms, the library and third floor hallway. The metal roof over the girls and boys toilet also leaks. Interior damage has been limited by the building engineer locating buckets in the attic to catch water before damaging classrooms.

Metal built-in gutters have corroded and are leaking. Wood framing supporting the gutters has rotted. School staff report that some patching and repairs have occurred over the years, but water damage continues due to failed gutters. Downspouts have been replaced in the last five years. Downspouts are all in working order.

Masonry - Brick joints at the exterior are deteriorated. Damage at interior walls has resulted from water penetration at the northeast elevation. The entire building needs repointing.

Windows - Windows are original three over three and six over six double hung

wood sash, with arched transoms at the first, second, and third floors. The windows are in poor condition. Many muntins have rotted, making it impossible to replace cracked and broken lites at many windows. Rather than replacing broken or cracked windows, the school system secures the pane with plexiglass. In some cases, plexiglass sheets cover entire window units where glazing is too loose or muntins are too damaged to allow repair. Many windows on the second and third floors are inoperable.

**B. Structure**

Structurally, the building appears to be in basically sound condition. Exterior walls are masonry. Floor and roof framing are wood. Original interior walls are typically plaster on lath. There are no obvious signs of settling or major cracking in basement or exterior walls, with two significant exceptions.

A basement level storage area extends under the entry stairs and the F Street sidewalk. The sidewalk is supported by steel beams. Serious deterioration of the original steel beams has occurred. School staff report that some repairs have been made. Some beams, however, are corroded to the point that the bottom flange and web have separated. These beams must be replaced. Temporary bracing has been installed awaiting permanent repairs. The second exception is a one and a half inch wide crack which is approximately 12 feet long, in the chemistry classroom storage area, where a ductwork chase offset is separating from the main wall. It is not readily apparent why this is taking place. Tadjer Cohen Edelson is investigating this condition.

**C. Interior Finishes**

Plaster finishes are typically in good condition, except in locations where there is water damage due to gutters or roof failure. Floors throughout the building are in very poor condition. Asbestos composition tile is coming up and tiles are missing throughout the classrooms and hallways, especially at the second and third floors. Area rugs are used in some classrooms where tile has worn through to the wood flooring below. Only the library floor, which has been recently replaced, is in good condition.

**D. Mechanical Systems**

There are two heating systems for the facility, hot air and a gas fired steam heat system. The primary system for heating classrooms is forced hot air delivered by an interesting but antique heat distribution system. Heat is provided by a massive bank of radiators at the basement level fan room which acts as a plenum. A wide leather belt drives a massive hot air distribution fan at the fan room which forces air up through shafts and grilles built into the original walls between classrooms.

The second system includes two 34 year old boilers which provides steam to radiators in the hallways, the school office, and to one classroom (209) at the second floor. Despite their age, the boilers are reported to be operating well, due to good maintenance. They are significantly less efficient than modern units.

Due to subdivision of original classrooms into smaller classroom spaces, there are four classrooms with no heat. In addition, five other classrooms consistently suffer from inadequate heating. Eight classrooms, the library, computer room, and the school office, have no heating controls and are consistently too hot.

There is no central air conditioning. Window units are installed at the Main Office, Library, Counselor's Office, Computer Lab, and one classroom (312). All window units are currently operable.

The kitchen space used for limited teaching on the second floor needs an exhaust hood over a currently operating gas stove. A second gas stove is not connected but would also need a hood. The kitchen equipment is not of a commercial grade.

**E. Plumbing Systems**

Most plumbing dates from the installation of interior fixtures, although some domestic water supply lines have been replaced. There is currently a leak in the main water supply into the building in the 3" water line that feeds the building. The elbow which is leaking is in the basement level women's toilet and conveniently leaks into a floor drain. Plans are being made to replace the deteriorated elbow. However, the water will need to be turned off at the street since no valve exists before the location of the leaks. Water pressure appears adequate.

Hot water is provided by gas fired water heater located at the basement mechanical room. The hot water supply is reported to be adequate for current needs, but is slow to reach the upper floors. As of February 6, 1998, there is no hot water in the school. The hot water heater began leaking from the bottom and so was turned off by the building engineer. DCPS has been contacted about this situation.

There is only one location for student restrooms. One girls bathroom and one boys bathroom are located in the basement of the school. The bathroom fixtures are aged and layout of the bathrooms are poor. There are two bathroom facilities for adults. One between the basement and first floor; and one off the teachers room on the third floor. There is a third single toilet as part of the health room on the 2nd floor.

Drinking fountains, where they occur are in fair to poor condition. There are inadequate plumbing facilities for science classes and the cooking class. The school has no cafeteria or similar food preparation areas.

**F. Fire Suppression**

The building is partially sprinklered. I lacks related code compliant fire alarm system items including pull stations, lights, strobes, bells and smoke detectors.

### G. Electrical System

A 600 amp service is provided to the building. There are circuit breaker panels at the basement and on each floor of various sizes up to 225 amps. There is a problem in the winter months with tripping of circuit breakers in panels on the second and third floors when unheated classrooms use electric heaters to stay warm.

Only the main office, computer room and one classroom have had additional electrical outlets installed. Most classrooms, cloakrooms, and other spaces have a limited and inadequate number of duplex outlets.

There is no digital phone system. The existing telephone system is outdated.

### H. Technology

Although the school was cabled for a computer network, the cabling has not been connected to work stations or servers. The library is equipped, through a satellite dish in the parking lot, for distance learning, and calbe televisioni is also hooked up to the 23 inch television in the library. Connection to the Internet is available at one computer station in the library and one work station in the computer room on the 2nd floor. The internet is not readily available to students faculty or staff.

The school has only the most basic equipment with limited video and audio recording and editing capabilities. To supplement the limited capabilities at SWW, the art teacher works with students on video production using facilities at other locations.

### I. Security

No building wide electronic security system exists. There is no closed circuit television system. There are no metal detectors. There are no provisions for off-site security monitoring during non-school hours. There is no office for a security officer, however there is a security desk at the entrance to the school.

### J. Accessibility

The building is not accessible to persons with disabilities. No program areas exist at grade. There is no elevator to serve the four floors. Signage, where it exists, is not ADA compliant. Entry doors are not accessible. It would be extremely difficult for a mobility impaired or otherwise disabled student, staff member or parent to attend, work at or visit School Without Walls.

## 7. PROJECT GOALS AND STANDARDS

### A. Design Goals

The design goals listed below have been identified during discussion among DC Public School personnel, School Without Walls staff, students, parents, the 21st Century School Fund and the architect from Einhorn Yaffee and Prescott who has been working with the 21st Century School Fund to develop the education

specifications.

**1. Educational Program**
The facility's primary goal is to house and support educational programs consistent with the School Without Walls mission. The building spaces and amenities must facilitate current and anticipated instructional methods and curriculum in order to provide the best possible educational opportunities and outcomes for School Without Walls students.

**2. A Sense of Place**
Community is essential to the operation of the School Without Walls. This is particularly important given the fact that students can spend significant time off campus. The building's design should create memorable spaces and a strong and consistent architectural identity which will support this. Gathering areas will be a key element in providing orientation, focus and identity. The school community is committed to maintaining the intimate character of School Without Walls, even as it increases enrollment and size.

**3. Public Image**
The upgraded facility should present a new "public face" consistent with the significant improvements in the facility, and the unique nature of the School Without Walls program and it's relationship with the community. Assuming that the solution incorporates the existing building, the historic importance and character of the existing building should be respected.

**4. Flexibility**
Building layout and systems should ensure flexibility of use. Changes in instructional approach, curriculum, and student requirements are inevitable over the anticipated life of the new facility. Insofar as possible, the building should accommodate change without substantial additional expense.

**5. Technology Integration**
A modern School Without Walls will integrate technology, including computer and video use, distance learning, Internet and Web access, as well as other communications and multi-media technology into the learning process for students and staff. Telecommunication and technology should be available throughout the school and across classes and disciplines. It is anticipated that SWW will be the first DC high school with advanced integrated education technology in place on a school-wide basis.

**6. Partnership with George Washington University and Access by Community**
The SWW is located within the GWU campus plan and has a

programmatic as well as facility relationship with the University. The design and development of a modernized SWW should include the University in its planning and if part of a development partnership, also in its development.

The current facility is available after regular school hours to GWU under a use agreement with DCPS. It is anticipated that there will be continued and likely increased use by GWU in a fully modernized SWW facility. As part of the planning for a modernized SWW, DCPS has the opportunity to:

- Formalize the programmatic elements of the SWW/GWU partnership.
- Provide for reliable use by SWW of GWU facilities needed for the SWW program, but not available on site.
- Provide for reliable use of a modernized SWW by GWU.
- Explore the possibility of development of a portion of the SWW site for development, in order to generate revenue for the modernization of SWW.

The upgraded facility should be available as a site and community resource for non-school activities, including meetings for various community groups. Consistent with DC Public School's mission, it is not possible to provide community resource space, in addition to school program space, unless additional funding sources are identified to meet the additional costs. Therefore, maximum flexibility is desired.

**7. Code Compliance and Accessibility**

The upgraded facility will comply with all applicable building codes. The upgraded facility will allow complete programmatic and physical access for persons with disabilities, including compliance with ADAAG. Students with learning disabilities, and/or physical impairments that preclude full participation in school activities will be included to the greatest extent possible, and provided with specialized classes where appropriate. The upgraded facility should avoid the isolatioin of special education functions.

**8. Security**

A sense of security is crucial to a proper learning environment. Ready supervision of all student areas, including circulation routes and outside areas should be possible. Access to the high school should be controlled and the number of access points to the building minimized. It should be possible to secure unused portions of the school when only limited areas of the school are in use (e.g., night or weekend use).

## B. Project Standards

The modernization of the School Without Walls should comply with the D.C. Public School standards which may be in effect at the time of design and construction. The Goals 2000 Interim Report recommends overall school and classroom space area guidelines.

Interim Construction Standards were prepared for use with the Oyster School Public Private Development Partnership and can be used to guide the construction of a modernized School Without Walls.

### 1. Maintainability and Cost Efficiency

Materials and systems should be appropriate to the heavy use and wear to be expected in a fully occupied high school. Proper selections will help minimize maintenance costs, operational costs, and damage to and deterioration of the physical plant.

Consistent with the other project goals, the design should make the most efficient use of the District's resources. Long term (operational) costs should be minimized. This comment is particularly important in the selection of building finishes and engineering systems.

### 2. Energy Efficiency

The facility will be made significantly more energy-efficient than the existing building and will include an integrated energy management system to minimize operational costs. Maximum energy usage for the finished project should be no more than 45,000 BTU/GSF per year, assuming operation 10 hours a day and 200 days per year.

### 3. Indoor Air Quality

It is important that indoor air quality be maintained. Ventilation and filtration should exceed ASHRAE guidelines without excessive energy consumption. Care should be taken in the selection, installation, and detailing of interior materials and systems to avoid outgassing and high levels of particulates.

### 4. Building Ecology (Green Issues)

To the extent possible, the new work should minimize use of non-renewable and/or non-recycleable materials and resources and of materials containing high amounts of embodied energy. Use of local materials and sources should be maximized. These concerns apply to selection of not only the building structure and base systems, but also to the maintenance and operational costs, materials, and systems to be put in place after construction. The construction process should maximize opportunities to recycle materials. Use of alternative and nontraditional materials, systems, and methods should be considered in order to achieve these goals.

**5. Mechanical System**
Mechanical Systems will be determined as part of the design process. Systems should minimize operational cost and life cycle costs, be serviceable and maintainable with a reasonable level of staff effort. To the extent possible, sunlight should be integrated into the lighting and heating design.

**6. Plumbing System**
Plumbing systems should be provided consistent with the requirements of the applicable codes. Care should be taken in the selection of fixtures and systems to ensure accessibility by persons with disabilities and to minimize consumption of resources.

**7. Fire Protection**
The school should be fully sprinklered consistent with the D.C. Building Code and NFPA requirements. Fire signaling devices should include all ADA required signaling

**8. Electrical Systems**
Code compliant electrical service and distribution should be provided as required to support the school's program. Emergency power will be required for life safety, emergency lighting, and communications systems.

**9. Telecommunications**
The modernized facility will include:

Internet/Web Access at all work stations
SWW Network
SWW Video Network
Modern Telephone System
Distance Learning Capability
Video and Sound Recording/Editing Capability

**10. Security**
Provision of a safe learning and working environment and protection of the significant capital investment in building fabric, systems, and educational equipment is a requirement. The building should include provision for on and off-site monitoring of exterior doors, of motion detectors at circulation spaces and areas of security concern (computer rooms, science laboratories, etc.), and of fire and life safety systems. Provision of a closed circuit television system should be considered.

Security requirements and provisions should be coordinated with the Security office of the DC Public School system.

# 8. BUILDING PROGRAM

## A. Design Basis for Size of the Modernized School Without Walls

### 1. Enrollment

For the purposes of this project, anticipated enrollment for the modernized facility has been set at 429 students at 90% of capacity. The design capacity is 477 students. This number was selected after significant discussion and seeks to balance the demand for access to the school's program by DC Public School students and parents, with the school community's desire to maintain the unique character of the educational and social environment, due in no small part to the relatively small enrollment of the school. An enrollment of 429 was considered on the high side for the SWW community, with a preferred enrollment of 400. The enrollment increased, as a result of establishing required instructional spaces to support the educational program, and maintaining the discipline of a per square foot efficiency for building utilization.

An increase in enrollment was, however, considered desirable due to the following:

- *Staffing limitations under current enrollment of 300 students.* Using the FY1998 budget guidelines for staff allocations for an alternative school, 19 full time ET-15 teachers can be assigned to SWW. An enrollment of 400 would increase the teacher allotment to 25 full time teachers, giving the school more program flexibility.

- *High demand for admission to School Without Walls.* As one of only four self-contained small alternative public high schools in the District of Columbia, there is more demand for placement at SWW than space permits. Pressure for admission to SWW once a fully modernized facility will further increase demand and the District should be prepared to respond with some increased capacity at SWW.

  Even with high District drop out rates and a decline in overall District population, an increase in secondary school population has been provisionally projected.[1] Although the District of Columbia has continued to lose population, the metropolitan area is experiencing enrollment increases, which impact District alternative and magnet programs. In anticipation of these pressures, an increased capacity is justified.

[1] Demographic Study and Enrollment Projections for District of Columbia Public Schools: A Report to the Task Force on Education Infrastructure; The Grier Partnership; July 1995.

An enrollment of 429 students, however, is the upper end of what can be accommodated on the current site. Most importantly, the educational environment fostered by a small enrollment restricts the extent of facility expansion. Additionally, the capacity of off-site facilities used by SWW at the University of District of Columbia, Howard University and George Washington are important elements of the SWW program, and so must be factored into the final architectural program.

**B. Projected Teaching Staff—429 student Modernized SWW**

| | |
|---|---|
| Biology | 1 |
| Chemistry | 1 |
| Physics | 1 |
| General Science | 1 |
| Humanities | 5 |
| Social Studies | 5 |
| Math | 4 |
| Foreign Language | 2.5 |
| Music | 2 |
| Art | 1.5 |
| Physical Education | 2 |
| Dance | .5 |
| Business | 1 |
| ***Total Teachers*** | ***27.5*** |
| ESL | 1 |
| Librarian | 1 |
| Counselor | 2 |
| Library aide | 1 |
| Counselor aide | 1 |
| Computer aide | 1 |
| ***Total instructional Support*** | *7* |

**C. Administrative Staff for Modernized SWW**

| | |
|---|---|
| Principal | 1 |
| Assistant Principal | 1 |
| Administrative aid | 1 |
| Office clerk | 1 |
| Attendance counselor | 1 |
| Attendance aide | 1 |
| Security aide | 1 |
| Internship Coordinator | 1 |
| Technical Support for Technology | 1 |
| Building Engineer | 1 |
| Custodian | 2 |
| ***Total*** | ***12*** |

## C. Proposed and Current Space Requirements

The following program presents net square footage requirement for The School Without Walls (SWW). It is based on interviews and discussions with representatives of SWW and the D.C. Public School System, as well as observation of existing school facilities. The program assumes an enrollment of 429 students and a design capacity of 477 students.

Guidelines for gross and net square feet per student have been proposed for use by DCPS by the Facilities working Group of the Goals 2000 Panel.[2] At the high school level, the recommendation is approximately 110 net square feet per student. SWW is currently operating with approximately 55 net square feet per student. Since approximately 20% of the time students are off site at internships or classes in other schools, it is possible to design a smaller facility for the SWW educational program than would be recommended for a self contained alternative high school in an isolated location. The estimate for modification due to the SWW program, is a reduction in the recommended 110 net square foot figure of 15%.

Under the Goals 2000 guidelines, the recommended size with the program modifications, for a 429 student SWW, designed for 477 students is 52,470 net square feet. In the space summary spread sheet, the estimated net square footage was 43,735 SF. At 68% efficiency, this would require a facility with gross square footage of 64,316 square feet. The current structure is 32,280 gross square feet and is 55% efficient. Floor plans of the current SWW layout are included in the attachments.

The reduction of 15% of design capacity does not include possible reduction in the size of School Without Walls which might be made due to program functions provided off-site. However, due to the inconsistent reliability of the SWW access to off site facilities such as gyms, auditorium, library, science and language labs, great care needs to be taken before eliminating these space requirements from the design program at SWW.

The building program totals 43,735 net square feet. This total includes 40,410 net square feet of instructional space. 10,250 net square feet of the instructional space is for physical education, a large portion of which could be accommodated off site, if the constraints of the site and project require. Administrative space of 3,325 net square feet of space is included in the space requirements. If a 68% building efficiency is attained, the gross square feet required for a modernized School Without Walls with a design capacity of 477 students is 64,316 GSF. The total does not include programmed exterior spaces.

[2] District of Columbia Goals 2000: Rebuilding Public School Facilities to 21st Century Standards; Interim Report, Goals 2000 State Panel, December 15, 1996.

## 9. SPACE REQUIREMENTS

This section includes detailed requirements for individual spaces including adjacencies, finishes, engineering, communication, and special requirements. This material expands on the basic space requirements outlined in the Spreadsheet Summary in Section 8 in a parallel format.

Space needs are developed in categories as follows:

- Teaching Stations
- Shared Functions
- Administration
- Support Functions
- Site Requirements

The individual space requirements assume the existence of an SWW Network and an SWW Video Network. The SWW Network would allow interconnection between internal and external computer systems including, at a minimum, controlled Internet access and an internal network which could be used for staff staff/student communication and to provide a resource for both teaching and student work. The SWW Video Network would provide both access to external video sources (cable and satellite television, distance learning activities) and internal video sources (recording/play of in-house materials or real time activities).

## ZONING ANALYSIS PREPARED FOR 21ST CENTURY SCHOOL FUND

POTENTIAL ACQUISITION OF 2130 G STREET, N.W.

OWNER: District of Columbia

PARCEL: Square 80; Lot 829; Property is located in the Foggy Bottom neighborhood and is situated within the George Washington University Campus Plan. However, it should be noted that George Washington University (GW University) does not own the Property.

DEVELOPMENT NAME: School Without Walls (Grant)

SITE SIZE: 29,711 square feet

TITLE: We have not reviewed the title to the Property and we disclaim responsibility to determine whether there are any restrictions upon title that might affect the use of the Property. We recommend that a reputable title company be retained to prepare a title bringdown. A bringdown will enable you to determine the state of the title, including any existing liens and easements.

We have not made a physical inspection of the Property, and we have not engaged others to do so in connection with the issuance of this letter. Accordingly, we expressly disclaim responsibility for matters contained herein which require information which a physical inspection of the Property would reveal.

ZONING: This zoning analysis is based in part on the assumption that actions of officials and official bodies reflected in documents submitted to us or reviewed by us have been duly and properly taken in accordance with the applicable requirements of the District of Columbia's enabling laws and the ordinances, bylaws or rules or procedures adopted by the relevant bodies.

R-5-D (Residential-Medium-High Density)

The Property was the subject of a city wide rezoning in 1992 that changed it's zoning from an R-5-C district to an R-5-D district. The purpose of the rezoning was to amend the text of the District of Columbia Municipal Regulations (DCMR), Title 11, Zoning so as to eliminate inconsistencies with the Comprehensive Plan. The rezoning created and mapped a new R-5-C zone district with height and density standards between the prior R-%-B and R-5-C zone districts. The previous existing provisions for the ode R-5-C district became those of the revised R-5-D, while those of the old R-5-D district became those for the newly designated R-5-E district. See Exhibit A "Amendment."

The major matter of right uses for the R-5-D district include multiple dwellings, youth residential care home, and child development center. A list of all the

uses permitted in an R-5 district is attached as Exhibit B "R-5 District."

An R-5D structure can have a maximum height of 90 feet (with no limit on the number of stories), a maximum floor area ratio of 3.5 for all structures, and a maximum lot occupancy of 75 percent. A copy of the District's regulations of height, area, and density regulations for residential districts is included. See Exhibit C "Zoning Regulation."

PROFFERS/DEVELOPMENT CONDITIONS: None

PENDING ZONING VOILATIONS: None

PENDING SITE PLAN APPLICATIONS: None

EXISTING COMPREHENSIVE PLAN DESIGNATION: The Property site is presently identified as "institutional use: on the Comprehensive Plan Land Use Map.

GEORGE WASHINGTON UNIVERSITY CAMPUS PLAN DESIGNATION: The Property is presently designated "educational mixed use." According to the GW University Campus plan, this classification can include classrooms, laboratories, libraries, student activities facility offices, parking, parks and open space, and related support functions. See Exhibit D "Campus Plan Map."

HISTORICAL DESIGNATION: None. The Property is not presently listed with the D.C. historical Preservation Division, nor is an application for such a listing pending.

ZONING CONCLUSION/ RECOMMENDATIONS: According to D.C. tax records, of the 29 lots contained in this square, 22 of the properties are owned by George Washington University (See Exhibit E) "Tax Records"). The remaining properties are owned by others. This information clearly suggests that one of the uses that can be made of the Property is to sell or lease this Property on a long term basis to GW University.

While it appears that the GW University would like to consolidate its holdings in the area, other investment options should be explored in order to determine the best option for the land. The Comprehensive Plan for Ward 2 reflects conflicting tensions in terms of future development plans for the area (See Exhibit F "Ward 2 Plan"). The Plan for Ward 2 specifically addresses the effect of GW University's presence on the existing housing stock and on the commercial retail leasing market. Future development objectives of the area suggests a desire to better manage the growth and expansion of GW University.

Towards this end, the Plan advocates requiring written justifications for non-dormitory development, increased emphasis on GW University providing adequate on-campus parking, and better integration of development objectives with the residential and historical nature of the area.

Given the strong presence of GW University, as well as the need for student-oriented housing that exists in the area, proposed development options may do well in considering dormitory or apartment construction in the area. This construction could be done either in conjunction with or apart from the GW University. Such uses would be consistent with the existing zoning for the area, while at the same allowing the land to be a steady, income-producing alternative for the District of Columbia. While the purpose of this analysis is merely to identify the zoning environment for the area, such a use would seem to well serve the area while at the same time, meet conflicting needs and objectives presented in both the Comprehensive Plan for Ward 2 and the GW University Master Campus Plan.